Billing Code: 6560-50-P

#### ENVIRONMENTAL PROTECTION AGENCY

#### **40 CFR Part 52**

[EPA-R09-OAR-2015-0711; FRL - 9946-60-Region 9]

Approval and Promulgation of Implementation Plans; California; San Joaquin Valley;

**Revisions to Motor Vehicle Emissions Budgets for Ozone and Particulate Matter** 

**AGENCY:** Environmental Protection Agency.

**ACTION:** Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to approve and conditionally approve revisions to the State of California's State Implementation Plan (SIP) for the San Joaquin Valley (SJV) area. The revisions consist of an update to the Motor Vehicle Emissions Budgets ("budgets") for nitrogen oxides (NO<sub>x</sub>) and volatile organic compounds (VOCs) for the 1997 8-hour ozone national ambient air quality standard (NAAQS or "standard") for the SJV ozone nonattainment area; for NO<sub>x</sub> and fine particulate matter (PM<sub>2.5</sub>) for the 2006 24-hour PM<sub>2.5</sub> standard for the SJV PM<sub>2.5</sub> nonattainment area; and for NO<sub>x</sub> and course particulate matter (PM<sub>10</sub>) for the 1987 24-hour PM<sub>10</sub> standard for the SJV PM<sub>10</sub> maintenance area. The EPA is proposing to approve the SJV ozone and PM<sub>2.5</sub> revised budgets and conditionally approve the PM<sub>10</sub> budgets in accordance with the requirements of the Clean Air Act (CAA or "Act") and the EPA's regulations.

DATES: Comments must be received on or before [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES**: Submit your comments, identified by Docket ID No. EPA-R09-OAR-2015-0711 at http://www.regulations.gov. Follow the online instructions for submitting comments. Once

submitted, comments cannot be edited or removed from Regulations.gov. The EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (i.e. on the web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit http://www2.epa.gov/dockets/commenting-epa-dockets.

Docket: The index to the docket and documents in the docket for this action are generally available electronically at www.regulations.gov and in hard copy at EPA Region IX, 75

Hawthorne Street, San Francisco, California. While all documents in the docket are listed at www.regulations.gov, some information may be publicly available only at the hard copy location (e.g., copyrighted material, large maps), and some may not be publicly available in either location (e.g., CBI). To inspect the hard copy materials, please schedule an appointment during normal business hours with the contact listed in the **FOR FURTHER INFORMATION CONTACT** section.

**FOR FURTHER INFORMATION CONTACT**: Karina O'Connor, Air Planning Office (AIR-2), U.S. Environmental Protection Agency, Region IX, (775) 434-8176, oconnor.karina@epa.gov.

**SUPPLEMENTARY INFORMATION**: Throughout this document, whenever "we," "us," or "our" is used, we mean the EPA. This supplementary information section is arranged as follows:

#### **Table of Contents**

- I. What Action is the EPA Proposing?
- II. Background
  - A. Standards Applicable to Today's Action
  - B. SIP Budgets and Transportation Conformity
  - C. What is the EMFAC Model?
  - D. What Versions of EMFAC are Currently in Use in California?
  - E. What Changes does EMFAC2014 Reflect?
  - F. Existing Adequate or Approved Budgets
  - G. Submission of Revised Budgets Based on EMFAC2014
- III. CAA Procedural and Administrative Requirements for SIP Submittals
- IV. What are the Criteria for Approval of Revised Budgets?
- V. Summary of Changes to Budgets and the EPA's Analysis of the State's Submittal
  - A. Review of Revised Budgets for the 1997 8-Hour Ozone Standard
  - B. Review of Revised Budgets for the 2006 24-Hour PM<sub>2.5</sub> Standard
  - C. Review of Revised Budgets for the 24-Hour PM<sub>10</sub> Standard
- VI. Proposed Action and Request for Public Comment
- VII. Statutory and Executive Order Reviews

#### I. What Action is the EPA Proposing?

The EPA is proposing action on a SIP revision submitted by the State of California ("State") on November 13, 2015. The SIP submittal revises budgets applicable to control strategy or maintenance plans for the SJV for three different NAAQS. We are proposing to approve revised budgets for the 1997 8-hour ozone standard and the 2006 24-hour PM<sub>2.5</sub>

standard. We are also proposing to conditionally approve revised budgets for the 1987 24-hour PM<sub>10</sub> standard. Should the EPA later finalize the revised budgets as proposed herein, they will replace the SJV's existing budgets for the 1997 8-hour ozone standard, the 2006 24-hour PM<sub>2.5</sub> standard, and the 1987 24-hour PM<sub>10</sub> standard. At that time, the previously-approved or adequate budgets would no longer be applicable for transportation conformity purposes, and the revised budgets would need to be used as of the effective date of the final approval.

# II. Background

#### A. Standards Applicable to Today's Action

In 1997, the EPA revised the ozone standard to set the acceptable level of ozone in the ambient air at 0.08 parts per million, averaged over an 8-hour period. 62 FR 38856 (July 18, 1997). On April 15, 2004, the EPA designated the SJV as nonattainment for the 1997 8-hour ozone standard and classified the area as "Serious" under CAA section 181(a)(1) and 40 CFR 51.903(a), Table 1. See 69 FR 23858 at 23888-89 (April 30, 2004) and 40 CFR 81.305. In 2007, California requested that the EPA reclassify the SJV from "Serious" to "Extreme" nonattainment for the 1997 8-hour ozone standard under CAA section 181(b)(3). We granted California's request on May 5, 2010 and reclassified the SJV to Extreme for the 1997 8-hour ozone standard effective June 4, 2010. See 75 FR 24409.

In 2006, the EPA revised the PM<sub>2.5</sub> 24-hour standard to provide increased protection of public health by lowering its level from 65 micrograms per cubic meter ( $\mu g/m^3$ ) to 35  $\mu g/m^3$  (40 CFR 50.13). On November 13, 2009, the EPA designated the SJV as nonattainment for the 2006

<sup>1</sup> 

<sup>&</sup>lt;sup>1</sup> In 2008, the EPA revised and further strengthened the 8-hour ozone standard by setting the acceptable level of ozone in the ambient air at 0.075 ppm, averaged over an 8-hour period ("2008 8-hour ozone standard"). 73 FR 16436 (March 27, 2008). In 2015, the EPA further tightened the 8-hour ozone standard to 0.070 ppm. 80 FR 65292 (October 26, 2015).

24-hour PM<sub>2.5</sub> standard. 74 FR 58688 (November 13, 2009). This designation became effective on December 14, 2009 (40 CFR 81.305).<sup>2</sup>

In 1987, the EPA revised the particulate matter standard, replacing standards for total suspended particulates with new standards applying only to PM<sub>10</sub>. 52 FR 24633 (July 1, 1987). In 1990, the SJV was designated nonattainment for PM<sub>10</sub>. 56 FR 11101 (March 15, 1991). In 2006, the 24-hour PM<sub>10</sub> standard was retained, but the annual standard was revoked effective December 18, 2006. 71 FR 61144 (October 17, 2006).<sup>3</sup> In 2008, the EPA approved a PM<sub>10</sub> maintenance plan and redesignated the SJV to attainment for the 24-hour PM<sub>10</sub> standard. 73 FR 66759 (November 12, 2008).

For all three pollutants, the SJV nonattainment area includes all of seven counties, including Fresno, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare counties, and the western half of Kern County. See the NAAQS-specific tables in 40 CFR 81.305.

### B. SIP Budgets and Transportation Conformity

Under the CAA, states are required to submit, at various times, control strategy SIP revisions and maintenance plans for nonattainment and maintenance areas for a given NAAQS. These emission control strategy SIP revisions (e.g., reasonable further progress (RFP) and attainment demonstration SIP revisions) and maintenance plans include motor vehicle emissions budgets of on-road mobile source emissions for criteria pollutants and/or their precursors to address pollution from cars and trucks. SIP budgets are the portions of the total allowable emissions that are allocated to on-road vehicle use that, together with emissions from other sources in the area, will provide for RFP, attainment or maintenance. The budget serves as a ceiling on emissions from an area's planned transportation system. For more information about

 $<sup>^2</sup>$  The SJV area is also designated nonattainment for the 1997 annual and 24-hour PM $_{2.5}$  standards.

 $<sup>^3</sup>$  In 2013, the EPA again retained the 24-hour PM<sub>10</sub> standard of 150 ug/m $^3$ . See 78 FR 3086 (January 15, 2013).

budgets, see the preamble to the November 24, 1993, transportation conformity rule (58 FR 62188).

Under section 176(c) of the CAA, transportation plans, Transportation Improvement Programs (TIPs), and transportation projects must "conform" to (*i.e.*, be consistent with) the SIP before they can be adopted or approved. Conformity to the SIP means that transportation activities will not cause new air quality violations, worsen existing air quality violations, or delay timely attainment of the NAAQS or delay an interim milestone. The transportation conformity regulations can be found at 40 CFR Part 93.

Before budgets can be used in conformity determinations, the EPA must affirmatively find the budgets adequate. However, adequate budgets do not supersede approved budgets for the same CAA purpose. If the submitted SIP budgets are meant to replace budgets for the same purpose, the EPA must approve the budgets, and can affirm that they are adequate at the same time. Once the EPA approves the submitted budgets, they must be used by state and federal agencies in determining whether transportation activities conform to the SIP as required by section 176(c) of the CAA. The EPA's substantive criteria for determining the adequacy of budgets are set out in 40 CFR 93.118(e)(4).

#### *C.* What is the EMFAC model?

The EMFAC model (short for EMission FACtor) is a computer model developed by the California Air Resources Board (CARB). CARB updates EMFAC on a regular basis and releases new versions generally every three or four years. The current version can estimate emission rates for on-road mobile sources ("motor vehicles") operating in California for calendar years from 2000 to 2050. Pollutant emissions for VOCs, 4 carbon monoxide (CO), NO<sub>x</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, lead,

<sup>&</sup>lt;sup>4</sup> California plans sometimes use the term Reactive Organic Gases (ROG) for VOC. These terms are essentially synonymous. For simplicity, we use the term VOC herein to mean either VOC or ROG.

carbon dioxide (CO<sub>2</sub>), and sulfur oxides are outputs generated by the model. Emissions are calculated for fifty-one different vehicle classes composed of passenger cars, various types of trucks and buses, motorcycles, and motor homes.

EMFAC is used to calculate current and future inventories of motor vehicle emissions at the state, air district, air basin, or county level. EMFAC contains default vehicle activity data, and the option of modifying that data, so it can be used to estimate a motor vehicle emissions inventory in tons/day for a specific year, month, or season, and as a function of ambient temperature, relative humidity, vehicle population, mileage accrual, miles of travel and speeds. Thus the model can be used to make decisions about air pollution policies and programs at the local or state level. Inventories based on EMFAC are also used to meet the federal CAA's SIP and transportation conformity requirements.

### D. What Versions of EMFAC are Currently in Use in California?

Most budgets in the California SIP were developed using EMFAC2007 (released by CARB in October 2007) or EMFAC2011 (released by CARB in September 2011). The EPA approved EMFAC2007 at 73 FR 3464 (January 18, 2008) and EMFAC2011 at 78 FR 14533 (March 16, 2013) for all areas in California.

EMFAC2011 was considered a major update to previous versions of EMFAC and most budgets in the California SIP were updated with EMFAC2011 in the 2012-2014 timeframe.

EMFAC2011 included a new model structure, new data and methodologies regarding calculation of motor vehicle emissions, and revisions to implementation data for control measures.

#### E. What Changes does EMFAC2014 Reflect?

The EPA approved EMFAC2014 for use in SIP revisions and transportation conformity at 80 FR 77337 (December 14, 2015). EMFAC2014 includes significant changes to its model

interface, new data and methodologies regarding calculation of motor vehicle emissions and revisions to implementation data for control measures. EMFAC2014 includes updated data on car and truck activity, and emissions reductions associated with CARB's Advanced Clean Cars regulations. Motor vehicle fleet age, vehicle types and vehicle population have also been updated based on 2000-2012 California Department of Motor Vehicle data. EMFAC2014 incorporates new temperature and humidity profiles. Each of these changes impact emission factors for each area in California. In addition to changes to truck activity, EMFAC incorporates updated vehicle miles traveled (VMT) for all vehicle classes. The new model interface for EMFAC2014 allows users to update the default VMT data and speed profiles by vehicle class for different future scenarios. CARB's web site describes these and other model changes at: http://www.arb.ca.gov/msei/categories.htm#onroad\_motor\_vehicles

### F. Existing Adequate or Approved Budgets

The EPA previously approved the SJV budgets for the 1997 8-hour ozone standard and the 24-hour PM<sub>10</sub> standard. The ozone budgets were included in the EPA's approval of the SJV 2007 8-hour Ozone Plan ("2007 Ozone Plan") at 77 FR 12652 (March 1, 2012), which established NO<sub>x</sub> and VOC budgets for 2011, 2014, 2017, 2020, and 2023. The PM<sub>10</sub> budgets were included in the EPA's approval of the 2007 PM<sub>10</sub> Maintenance Plan and Request for Redesignation ("2007 PM<sub>10</sub> Plan") at 73 FR 66759 (November 12, 2008), which established direct PM<sub>10</sub> and NO<sub>x</sub> budgets for 2005 and 2020.

.

<sup>&</sup>lt;sup>5</sup> For further information, see the EPA's January 9, 2013 waiver of preemption for the Advanced Clean Cars regulations at 78 FR 2112.

 <sup>&</sup>lt;sup>6</sup> The approved 2007 Ozone Plan includes the SJV 2007 Ozone Plan (as revised 2008 and 2011) and SJV-related portions of CARB's 2007 State Strategy (revised 2009 and 2011).
 <sup>7</sup> The approved SIP includes the 2007 PM<sub>10</sub> Maintenance Plan and Request for Redesignation, September 20, 2007,

<sup>&</sup>lt;sup>7</sup> The approved SIP includes the 2007 PM<sub>10</sub> Maintenance Plan and Request for Redesignation, September 20, 2007, and technical corrections by CARB to the 2020 budgets for Merced, San Joaquin, Stanislaus and Tulare counties in the 2007 PM<sub>10</sub> Plan. See May 13, 2008 letter to Mr. Wayne Nastri from James N. Goldstene.

The EPA previously proposed to approve the SJV budgets for the 2006 24-hour PM<sub>2.5</sub> standard. The PM<sub>2.5</sub> budgets were included in the EPA's proposed approval of the SJV 2012 PM<sub>2.5</sub> Plan ("2012 PM<sub>2.5</sub> Plan") at 80 FR 1816 (January 13, 2015). The EPA found the 2017 PM<sub>2.5</sub> budgets in the SJV 2012 PM<sub>2.5</sub> Plan to be adequate at 81 FR 22194 (April 15, 2016), establishing direct PM<sub>2.5</sub> and NO<sub>x</sub> budgets for 2017. As of May 2, 2016, these budgets must be used to determine conformity of transportation plans and TIPs to the control strategy plan for the SJV for the 2006 24-hour PM<sub>2.5</sub> standard.<sup>8</sup>

The current EPA-approved budgets for the 1997 8-hour ozone standard and PM<sub>10</sub> standard were developed using EMFAC2007, and the adequate budgets for the 2006 24-hour PM<sub>2.5</sub> standard were developed using EMFAC2011. In the SJV, the eight county-level Metropolitan Planning Organizations (MPOs) and the U.S. Department of Transportation (DOT) are the relevant transportation agencies that must use approved or adequate budgets in determining the conformity of transportation plans and TIPs within the SJV region.

### G. Submission of Revised Budgets Based on EMFAC2014

The revised budgets for the 1997 8-hour ozone, 2006 24-hour  $PM_{2.5}$ , and 24-hour  $PM_{10}$  standards were adopted by the CARB on October 22, 2015. They were submitted to the EPA on November 13, 2015. November 13, 2015.

#### III. CAA Procedural and Administrative Requirements for SIP Submittals

CAA sections 110(a)(1) and (2) and 110(l) require a state to provide reasonable public notice and opportunity for public hearing prior to the adoption and submittal of a SIP or SIP revision. To meet this requirement, every SIP submittal should include evidence that adequate

<sup>&</sup>lt;sup>8</sup> Also see letter, Elizabeth J. Adams, Deputy Director, Air Division, EPA Region 9, to Richard W. Corey, Executive Officer, CARB, April 1, 2016 with enclosures.

<sup>&</sup>lt;sup>9</sup> CARB Resolution No. 15-50, October 22, 2015.

<sup>&</sup>lt;sup>10</sup> Letter, Richard W. Corey, Executive Officer, CARB to Jared Blumenfeld, Regional Administrator, EPA Region 9, November 13, 2015 with enclosures.

public notice was given and an opportunity for a public hearing was provided consistent with the EPA's implementing regulations in 40 CFR 51.102.

CARB satisfied applicable statutory and regulatory requirements for reasonable public notice and hearing prior to adoption and submittal of the revised budgets. In the documentation included as part of the November 13, 2015 SIP revision submittal, CARB provided evidence of the required public notice and opportunity for public comment prior to its October 22, 2015 public hearing and adoption of the revised budgets. We find, therefore, that the submittal of the revised budgets meets the procedural requirements for public notice and hearing in CAA sections 110(a) and 110(l).

CAA section 110(k)(1)(B) requires the EPA to determine whether a SIP submittal is complete within 60 days of receipt. This section also provides that any plan submittal that the EPA has not affirmatively determined to be complete or incomplete will be deemed complete by operation of law six months after the date of submittal. The EPA's SIP completeness criteria are found in 40 CFR part 51, Appendix V. The EPA determined that CARB's November 13, 2015 SIP revision submittal was complete on April 21, 2016.<sup>11</sup>

#### IV. What are the Criteria for Approval of Revised Budgets?

Under section 110(1) of the CAA, SIP revisions must not interfere with any applicable requirements concerning attainment or RFP or any other applicable requirement of the Act. Generally, the EPA reviews budgets for adequacy or approval in the context of the Agency's review of a control strategy implementation plan (i.e., attainment or RFP plan) or maintenance plan. However, revisions to budgets can be approved without comprehensive updates to the related control strategy implementation or maintenance plan if the plan, with the new level of

<sup>&</sup>lt;sup>11</sup> Letter, Deborah Jordan, Director, Air Division, EPA Region 9, to Richard W. Corey, Executive Officer, CARB, dated April 21, 2016.

motor vehicle emissions contained in the revised budgets, continues to meet applicable requirements (i.e., RFP, attainment, or maintenance). EPA policy guidance suggests that a state may revise the motor vehicle emissions inventories and related budgets without revising their entire SIP consistent with section 110(l) if: (1) the SIP continues to meet applicable requirements when the previous motor vehicle emissions inventories are replaced with new MOtor Vehicle Emission Simulator (MOVES) base year and milestone, attainment, or maintenance year inventories; and (2) the state can document that growth and control strategy assumptions for non-motor vehicle sources continue to be valid and any minor updates do not change the overall conclusions of the SIP. <sup>12</sup> The EPA's policy guidance for MOVES can be applied to EMFAC because EMFAC is a California-specific emissions model analogous to MOVES.

In addition, revised budgets that are intended to replace adequate (but not approved) budgets must meet the adequacy criteria found in our transportation conformity regulations at 40 CFR 93.118(e)(4). These criteria include endorsement by the Governor (or designee); prior consultation among relevant air and transportation agencies; clear identification and precise quantification of the budgets; consistency of the budgets, when considered with all other emissions sources, with applicable requirements for RFP, attainment or maintenance; consistency with and clear relation to the emissions inventory and control measures; and explanation and documentation of changes relative to previously submitted budgets. In this instance, the adequacy criteria do not apply to our review of the revised budgets for the 2007 Ozone Plan or the 2007 PM<sub>10</sub> Plan because the budgets they would replace are approved budgets.

<sup>&</sup>lt;sup>12</sup> Policy Guidance on the Use of MOVES2014 for State Implementation Plan Development, Transportation Conformity, and Other Purposes, EPA-420-B-14-008, July 2014. See question and answer #6 on page 7. Available online at: http://www3.epa.gov/otaq/models/moves/documents/420b14008.pdf. MOVES is a model that states use to estimate on-road emissions for SIP development, transportation conformity determinations, and other purposes. Also see examples of EPA rulemakings involving replacement of budgets in response to a MOVES update, e.g., Allentown-Bethlehem-Easton (79 FR 28435, May 16, 2014) and Beaumont/Port Arthur (78 FR 7672, February 4, 2013).

The adequacy criteria do, however, apply to our review of the revised budgets for the  $2012 \text{ PM}_{2.5}$  Plan because the budgets from that plan have been found adequate, but are not yet approved.

### V. Summary of Changes to Budgets and the EPA's Analysis of the State's Submittal

Table 1 lists the revised budgets by subarea included in the State's submittal for the SJV budgets applicable to the 1997 8-hour ozone, 2006 24-hour PM<sub>2.5</sub>, and the 24-hour PM<sub>10</sub> standards. CARB developed the revised budgets using EMFAC2014 and the travel activity projections provided by the San Joaquin Valley MPOs consistent with the 2015 Federal TIP. As such, we find that the revised budgets reflect the most recent planning forecasts and are based on the most recent emission factor data and approved calculation methods. A comparison of the current approved or adequate budgets with the revised budgets and a discussion of the EPA's proposed action on each set of budgets is provided further below.

Table 1. San Joaquin Valley Revised Budgets Developed Using EMFAC2014 <sup>13</sup>										
	1997 8-Hour Ozone Standard						2006 24-Hour PM <sub>2.5</sub> Standard		PM <sub>10</sub> Standard	
County Subarea	(tons	NO <sub>x</sub> ns per summer day)  VOC  (tons per summer day)		Direct PM <sub>2.5</sub> (tons per winter day)	NO <sub>x</sub> (tons per winter day)	Direct PM <sub>10</sub> (tons per annual day)	NO <sub>x</sub> (tons per annual day)			
	2017	2020	2023	2017	2020	2023	20	17	20	20
Fresno	29.9	24.3	14.6	8.7	6.8	5.6	1.0	32.1	7.0	25.4
Kern (SJV)	26.8	22.4	12.9	6.9	5.7	4.8	0.8	28.8	7.4	23.3

<sup>&</sup>lt;sup>13</sup> The county-specific budgets are set forth in attachment A to CARB Resolution 15-50. Attachment A constitutes the SIP revision adopted by CARB on October 22, 2015 and submitted on November 13, 2015. CARB provided information and analysis supporting the SIP revision in a staff report titled *Updated Transportation Conformity Budgets for the San Joaquin Valley Ozone*, *PM*<sub>2.5</sub>, *and PM*<sub>10</sub> *State Implementation Plans*, release date September 21, 2015.

Kings	5.5	4.7	2.7	1.4	1.1	0.9	0.2	5.9	1.8	4.8
Madera	5.5	4.5	2.7	2.0	1.6	1.3	0.2	6.0	2.5	4.7
Merced	10.3	8.5	5.1	2.7	2.1	1.7	0.3	11	3.8	8.9
San Joaquin	14.1	11.3	7.3	6.4	5.1	4.3	0.6	15.5	4.6	11.9
Stanislaus	11.3	9.2	5.8	4.1	3.2	2.7	0.4	12.3	3.7	9.6
Tulare	10.3	8.1	4.9	4.0	3.1	2.5	0.4	11.2	3.4	8.4

Note: CARB calculated the revised budgets for the SJV plans by taking the sum of the county-by-county emissions results from EMFAC and rounding the SJV-wide total up to the nearest whole ton for  $NO_x$  and to the nearest tenth of a ton for VOC,  $PM_{2.5}$  and  $PM_{10}$ ; then re-allocating to the individual counties based on the ratio of each county's contribution to the total; and then rounding each county's emissions to the nearest tenth of a ton using the conventional rounding method.

## A. Review of Revised Budgets for the 1997 8-Hour Ozone Standard

Tables 2 and 3 below compare the current EPA-approved  $NO_x$  and VOC budgets developed using EMFAC2007 with the revised budgets developed using EMFAC2014. The budgets are provided by subarea and apply to the 1997 8-hour ozone standard.

Table 2. Comparison of San Joaquin Valley Ozone Budgets for  $NO_x$  for the 1997 8-Hour Ozone Standard (tons per summer day)

Country		2017			2020		2023			
County Subarea	Current	Revised	Net Change	Current	Revised	Net Change	Current	Revised	Net Change	
Fresno	22.6	29.9	7.3	17.7	24.3	6.6	13.5	14.6	1.1	
Kern (SJV)	31.7	26.8	-4.9	25.1	22.4	-2.7	18.6	12.9	-5.7	
Kings	6.7	5.5	-1.2	5.3	4.7	-0.6	4.0	2.7	-1.3	
Madera	5.8	5.5	-0.3	4.7	4.5	-0.2	3.6	2.7	-0.9	
Merced	12.4	10.3	-2.1	9.9	8.5	-1.4	7.4	5.1	-2.3	
San Joaquin	15.6	14.1	-1.5	12.4	11.3	-1.1	10.0	7.3	-2.7	
Stanislaus	10.6	11.3	0.7	8.4	9.2	0.8	6.4	5.8	-0.6	
Tulare	10.1	10.3	0.2	8.1	8.1	0.0	6.2	4.9	-1.3	
Totals	115.5	113.7	-1.8	91.6	93.0	1.4	69.7	56.0	-13.7	

Note: CARB calculated the revised ozone budgets by taking the sum of the county-by-county emissions results from EMFAC and rounding the SJV-wide total up to the nearest whole ton for  $NO_x$  and nearest tenth of a ton for VOC; then re-allocating to the individual counties based on the ratio of each county's contribution to the total; and then rounding each county's emissions to the nearest tenth of a ton using the conventional rounding method. The previously approved budgets for ozone were rounded up to the nearest tenth of a ton at the county level.

Table 3. Comparison of San Joaquin Valley Ozone Budgets for VOC for the 1997 8-Hour Ozone Standard (tons per summer day)

Commtry		2017			2020		2023			
County Subarea	Current	Revised	Net Change	Current	Revised	Net Change	Current	Revised	Net Change	
Fresno	9.3	8.7	-0.6	8.3	6.8	-1.5	8.0	5.6	-2.4	
Kern (SJV)	8.7	6.9	-1.8	8.2	5.7	-2.5	7.9	4.8	-3.1	
Kings	1.8	1.4	-0.4	1.7	1.1	-0.6	1.6	0.9	-0.7	
Madera	2.2	2.0	-0.2	2.0	1.6	-0.4	1.9	1.3	-0.6	
Merced	3.2	2.7	-0.5	2.9	2.1	-0.8	2.8	1.7	-1.1	
San Joaquin	7.2	6.4	-0.8	6.4	5.1	-1.3	6.3	4.3	-2.0	
Stanislaus	5.6	4.1	-1.5	5.0	3.2	-1.8	4.7	2.7	-2.0	
Tulare	5.8	4.0	-1.8	5.3	3.1	-2.2	4.9	2.5	-2.4	
Totals	43.8	36.2	-7.6	39.8	28.7	-11.1	38.1	23.8	-14.3	

Note: CARB calculated the revised ozone budgets by taking the sum of the county-by-county emissions results from EMFAC and rounding the SJV-wide total up to the nearest whole ton for NOx and to the nearest tenth of a ton for VOC; then re-allocating to the individual counties based on the ratio of each county's contribution to the total; and then rounding each county's emissions to the nearest tenth of a ton using the conventional rounding method. The previously approved budgets for ozone were rounded up to the nearest tenth of a ton at the county level.

The revised  $NO_x$  and VOC budgets for 2017, 2020, and 2023 are intended to replace the EPA-approved  $NO_x$  and VOC budgets in 2007 Ozone Plan developed for the 1997 8-hour ozone standard. A comparison of the current budgets with the revised budgets is shown in tables 2 and 3. The tables show that the  $NO_x$  and VOC totals for the revised budgets are less than the current budgets for all years, except 2020 for  $NO_x$ , which shows a slight increase of 1.4 tpd or 1.4% when compared to the prior budget.

First, we note that the 2007 Ozone Plan relied upon motor vehicle emissions inventories, from which the budgets <sup>14</sup> were derived, to demonstrate compliance with RFP and attainment requirements. With respect to the RFP requirement, we found that the 2007 Ozone Plan provided a significant surplus of NO<sub>x</sub> emissions reductions beyond those necessary to meet the RFP requirement. See table 11 of our proposed approval of the 2007 Ozone Plan (76 FR 57862, September 16, 2011). As shown in tables 2 and 3, with one exception, the revised regional total motor vehicle emissions estimates submitted by CARB for VOC and NO<sub>x</sub> for 2017, 2020 and 2023 are lower than the corresponding estimates from the plan as approved in 2012. As such, the replacement of the older budgets with the revised budgets would not change the conclusion that the 2007 Ozone Plan meets the requirements for RFP. The exception, the 1.4 tpd of NO<sub>x</sub> in 2020, is too minor to affect the conclusion that the 2007 Ozone Plan will continue to meet the RFP requirement in that year given the significant surplus in NO<sub>x</sub> emissions reductions in that year.

-

 $<sup>^{14}</sup>$  In San Joaquin Valley plans, the motor vehicle emissions inventories are essentially the same as the budgets. Historically, CARB has set the budget for the SJV MPOs by rounding the motor vehicle emissions estimate to the nearest tenth of a ton. With more recent plans and for the revised budgets, CARB rounds the regional total motor vehicle emissions inventories up to the nearest whole ton (for  $NO_x$ ) or the nearest tenth of a ton (for ROG,  $PM_{2.5}$  and  $PM_{10}$ ) and then re-allocates the emissions to the various counties based on the ratio of the county-specific motor vehicle emissions to the regional total. The re-allocated county-specific emissions estimate is rounded conventionally to the nearest tenth of a ton, which then constitutes the budget. See the attachment to CARB's staff report included in the November 13, 2015 submittal in support of the SIP revision (i.e., the revised budgets).

Second, we have reviewed the analysis CARB prepared in support of the revised budgets and contained in the staff report included with the November 13, 2015 SIP revision submittal. In that analysis, CARB prepared updated NO<sub>x</sub> and VOC emissions inventories from all sources (i.e., stationary, area, on-road and non-road sources) in the SJV for 2017, 2020, and 2023. These updated inventories provide a basis for comparison with the corresponding inventories from the 2007 Ozone Plan. We would expect that most current emissions estimates from all sources in SJV in 2017, 2020, and 2023 would be lower than those included in the 2007 Ozone Plan because they reflect control measures adopted since the plan was approved, and as shown below in tables 4 and 5, the updated regional emissions for 2017, 2020, and 2023, including the revised budgets, are approximately 20 tpd, 15 tpd, and 34 tpd lower for NO<sub>x</sub> and 0 tpd, 4 tpd, and 12 tpd lower for VOCs, respectively, than the corresponding figures in the EPA-approved plan. The most significant differences between the inventories are from large decreases in the actual reported emissions for several point source categories (i.e., cogeneration, oil and gas production, food and agriculture, glass manufacturing and composting), compared to their projected emissions in the EPA-approved plan. <sup>15</sup> Other significant differences include updates to: (1) agricultural acreage burned; (2) CARB's off-road source emissions using a newer suite of category-specific models developed to support recent CARB regulations; and (3) animal population estimates and VOC emission factors for livestock operations. The current emissions estimates for 2023 (161 tpd of NO<sub>x</sub>, and 327 tpd of VOC) are consistent with the attainment target level<sup>16</sup> for the 1997 ozone standard (141 tpd of NO<sub>x</sub>, and 342 tpd of VOC) given the continued implementation of the long-term element of the control strategy of the 2007 Ozone

\_\_\_

<sup>&</sup>lt;sup>15</sup> Comparing the Emission Inventories for the San Joaquin Valley State Implementation Plans, CARB, March 30, 2016. Attachment to email from Dennis Wade, CARB, to John Ungvarsky, EPA Region 9, March 30, 2016. <sup>16</sup> See table 9 on page 57858 of our proposed approval of the 2007 Ozone Plan at 76 FR 57846 (September 16, 2011).

Plan to develop new technologies or to improve existing control technologies as approved by EPA under section 182(e)(5).

Therefore, we find that the 2007 Ozone Plan will continue to meet applicable requirements for RFP and attainment when the previously-approved EMFAC2007-based budgets are replaced with the revised EMFAC2014-based budgets, and that the changes in the growth and control strategy assumptions for non-motor vehicle sources do not change the overall conclusions of the 2007 Ozone Plan. As such, we find that approval of the revised NO<sub>x</sub> and VOC budgets for the 2007 Ozone Plan for 2017, 2020 and 2023 as shown in table 1 would not interfere with attainment or RFP or any other requirement of the Act and would thereby comply with section 110(1), and we propose to approve them on that basis.

Table 4. Comparison of  $NO_x$  Inventories Associated with Current and Revised Budgets for the 1997 8-Hour Ozone Standard (tons per summer day)  $^{17}$ 

Inventory Category	Emissions Inventory in Approved Ozone Plan			Updated Emissions Inventory			Net Change			
	2017	2020	2023	2017	2020	2023	2017	2020	2023	
Stationary and Area	55	53	53	36	36	35	-19	-17	-18	
On-road	115	91	69	113	92	55	-2	1	-14	
Non-road	89	80	73	89	82	70	0	2	-3	
Totals	259	225	195	239	210	161	-20	-15	-34	

Note: Because of rounding conventions, totals may not reflect individual subcategories. For the net change, a negative number indicates a reduction in emissions, and a positive number indicates an increase in emissions relative to the corresponding figure in the 2007 Ozone Plan.

report submitted as part of the November 13, 2015 SIP revision submittal.

18

<sup>&</sup>lt;sup>17</sup> The emissions shown for the approved ozone plan are from appendix A-3 and B-3 of CARB's 2011 update to the 2007 Ozone Plan titled "Proposed 8-Hour Ozone State Implementation Plan Revisions and Technical Revisions to the PM<sub>2.5</sub> State Implementation Plan Transportation Conformity Budgets for the South Coast and San Joaquin Valley Air Basins" (release date: June 20, 2011). CARB's updated emissions inventory is presented in CARB's staff

**Table 5. Comparison of VOC Inventories Associated with Current and Revised Budgets for the 1997 8-Hour Ozone Standard** (tons per summer day) <sup>18</sup>

Inventory Category	Emissions Inventory in Approved Ozone Plan			Updated Emissions Inventory			Net Change		
	2017	2020	2023	2017	2020	2023	2017	2020	2023
Stationary and Area	229	235	244	255	263	272	26	28	28
On-road	43	39	37	36	29	24	-7	-10	-13
Non-road	57	57	57	38	35	32	-19	-22	-25
Totals	329	331	339	329	327	327	0	-4	-12

Note: Because of rounding conventions, totals may not reflect individual subcategories. For the net change, a negative number indicates a reduction in emissions, and a positive number indicates an increase in emissions relative to the corresponding figure in the 2007 Ozone Plan.

### B. Review of Revised Budgets for the 2006 24-Hour PM<sub>2.5</sub> Standard

Table 6 below compares the current direct  $PM_{2.5}$  and  $NO_x$  budgets developed using EMFAC2011 that were recently found adequate for transportation conformity purposes with the revised budgets developed using EMFAC2014. The budgets are provided by subarea and apply to the 2006 24-hour  $PM_{2.5}$  standard.

Table 6. Comparison of San Joaquin Valley 2017 PM<sub>2.5</sub> Budgets for PM<sub>2.5</sub> and NO<sub>x</sub> for the 2006 24-Hour PM<sub>2.5</sub> Standard (tons per winter day)  $NO_x$ Direct PM<sub>2.5</sub> **County** Net Net Subarea Current Revised Current Revised Change Change Fresno 0.9 1.0 0.1 25.2 32.1 6.9 Kern (SJV) -0.21.0 0.8 34.4 28.8 -5.6 Kings 0.2 0.2 0.0 7.2 5.9 -1.3

 $<sup>^{18}</sup>$  The emissions shown for the approved ozone plan are from appendix A-3 and appendix B-3 of CARB's 2011 update to the 2007 Ozone Plan titled *Proposed 8-Hour Ozone State Implementation Plan Revisions and Technical Revisions to the PM*<sub>2.5</sub> State Implementation Plan Transportation Conformity Budgets for the South Coast and San Joaquin Valley Air Basins (release date June 20, 2011). CARB's updated emissions inventory is presented in CARB's staff report submitted as part of the November 13, 2015 SIP revision submittal.

Madera	0.2	0.2	0.0	7.0	6.0	-1.0
Merced	0.4	0.3	-0.1	13.7	11	-2.7
San Joaquin	0.6	0.6	0.0	15.9	15.5	-0.4
Stanislaus	0.5	0.4	-0.1	12.0	12.3	0.3
Tulare	0.4	0.4	0.0	10.7	11.2	0.5
Totals	4.2	3.9	-0.3	126.1	122.8	-3.3

Note: CARB calculated the revised  $PM_{2.5}$  budgets by taking the sum of the county-by-county emissions results from EMFAC and rounding the SJV-wide total up to the nearest whole ton for  $NO_x$  and to the nearest tenth of a ton for direct  $PM_{2.5}$ ; then re-allocating to the individual counties based on the ratio of each county's contribution to the total; and then rounding each county's emissions to the nearest tenth of a ton using the conventional rounding method. The existing adequate  $PM_{2.5}$  budgets were calculated in the same manner.

The revised 2017 direct  $PM_{2.5}$  and  $NO_x$  budgets are intended to replace the adequate 2017  $PM_{2.5}$  and  $NO_x$  budgets in the 2012  $PM_{2.5}$  Plan developed for the 2006 24-hour  $PM_{2.5}$  standard. A comparison of the prior budgets with the revised budgets, as shown in table 6, indicates that the totals for the revised direct  $PM_{2.5}$  and  $NO_x$  budgets are less than the current budgets.

First, we note that the 2012 PM<sub>2.5</sub> Plan relied upon motor vehicle emissions inventories, from which the budgets were derived, for year 2017 to demonstrate compliance with RFP requirements for that year. In our proposed partial approval of the 2012 PM<sub>2.5</sub> Plan, we proposed to approve the RFP demonstration as meeting the requirements of CAA section 172(c)(2) for year 2017 based on emissions projections in the plan for that year that reflect full implementation of a control strategy that satisfies the Moderate area control requirements (i.e., RACM/RACT at a minimum). See 80 FR 1816, at 1834-1837 (January 13, 2015). We deemed such a showing to be sufficient to meet the RFP requirement in an area that cannot practicably attain the PM<sub>2.5</sub> standard by the applicable Moderate area attainment date. The revised motor vehicle emissions estimates used to develop the revised budgets continue to reflect full implementation of a control strategy that satisfies the Moderate area control requirements, and as such, replacement of the

EMFAC2011-based motor vehicle emissions budgets from the 2012 PM<sub>2.5</sub> Plan with the revised EMFAC2014-based motor vehicle emissions budgets would not change the proposal to approve the RFP demonstration for 2017 in the 2012 PM<sub>2.5</sub> Plan.

Second, we have reviewed the analysis that CARB prepared in support of the revised budgets and contained in the staff report included with the November 13, 2015 SIP revision submittal. In that analysis, CARB included a comparison of the estimated direct PM<sub>2.5</sub> and NO<sub>x</sub> emissions inventories from all sources (i.e., stationary, area, on-road and non-road sources) for 2017 with those from the 2012 PM<sub>2.5</sub> Plan. As shown below in table 7, the total emissions for 2017 associated with the revised budgets are approximately 7 tpd lower for direct PM<sub>2.5</sub> and 6 tpd lower for NO<sub>x</sub> when compared to the total emissions inventory in the 2012 PM<sub>2.5</sub> Plan containing the current budgets. The differences include updates to: agricultural acreage burned; locomotive and recreational boat emissions; and farming operations.

Therefore, we find that the 2012 PM<sub>2.5</sub> Plan continues to meet applicable requirements for RFP in 2017 when the EMFAC2011-based budgets are replaced with the new EMFAC2014-based budgets, and that the changes in the growth and control strategy assumptions for non-motor vehicle sources do not change the overall conclusions regarding the 2012 PM<sub>2.5</sub> Plan's demonstration of RFP for 2017. As such, we find that approval of the revised direct PM<sub>2.5</sub> and NO<sub>x</sub> budgets for the 2012 PM<sub>2.5</sub> Plan for year 2017 as shown in table 1 would not interfere with attainment or RFP or any other requirement of the Act and would thereby comply with section 110(1), and we propose to approve them on that basis.

In addition, we have reviewed the revised direct  $PM_{2.5}$  and  $NO_x$  budgets for compliance with the adequacy criteria and find that, in addition to being consistent with the 2017 RFP demonstration, they are clearly identified and precisely quantified and meet all of the other

criteria in 40 CFR 93.118(e)(i)-(vi). See the EPA memorandum documenting review of the budgets for compliance with the criteria in 40 CFR 93.118(e) that has been placed in the docket for this rulemaking.

Lastly, approval of the revised budgets would not affect our January 13, 2015 proposal, or rationale therein, to approve the trading mechanism as described on page C-32 in appendix C of the 2012  $PM_{2.5}$  Plan as enforceable components of the transportation conformity program in the SJV for the 2006  $PM_{2.5}$  standard with the condition, as explained in our January 13, 2015 proposal, that trades are limited to substituting excess reductions in  $NO_x$  for increases in  $PM_{2.5}$ . See 80 FR at 1816, at 1841 (January 13, 2015).

Table 7. Comparison of 2017 $PM_{2.5}$ and $NO_x$ Inventories Associated with Current and Revised Budgets for the 2006 24-Hour $PM_{2.5}$ Standard (tons per winter day) <sup>19</sup>									
Inventory Category	Inventor	nissions y in 2012 ; Plan	_	ed 2017 Inventory	Net Change				
	PM <sub>2.5</sub>	NO <sub>x</sub>	PM <sub>2.5</sub>	NO <sub>x</sub>	PM <sub>2.5</sub>	NO <sub>x</sub>			
Stationary	8.9	27.4	8.7	28.5	-0.2	1.1			
Area	46.8	15.6	41.2	11.7	-5.6	-3.9			
On-road	4.2	125.6	3.7	122.3	-0.5	-3.3			
Non-road	3.6	64.3	4.1	62.9	0.5	-1.4			
Totals	63.6	232.9	57.7	225.4	-5.9	-7.5			

Note: Because of rounding conventions, totals may not reflect individual subcategories. For the net change, a negative number indicates a reduction, and a positive number indicates an increase relative to the corresponding figure in the  $2012 \text{ PM}_{2.5} \text{ Plan}$ .

C. Review of Revised Budgets for the 24-Hour PM<sub>10</sub> Standard

22

<sup>&</sup>lt;sup>19</sup> CARB's updated emissions inventory is presented in CARB's staff report submitted as part of the November 13, 2015 SIP revision submittal.

Table 8 below compares the current EPA-approved direct  $PM_{10}$  and  $NO_x$  budgets developed using EMFAC2007 with the revised budgets developed using EMFAC2014. The budgets are provided by subarea and apply to the 24-hour  $PM_{10}$  standard.

Table 8. Comparison of San Joaquin Valley PM<sub>10</sub> 2020 Budgets for Direct PM<sub>10</sub> and NO<sub>x</sub> for the PM<sub>10</sub> Standard (annual average tons per day) Direct  $PM_{10}$  20  $NO_x$ **County** Subarea Current Revised Current Revised Change Change Fresno 16.1 7.0 -9.1 23.2 25.4 2.2 7.4 -7.3 Kern (SJV) 14.7 39.5 23.3 -16.2 -1.8 -2.0 Kings 3.6 1.8 6.8 4.8 4.7 -2.2 4.7 Madera 2.5 6.5 -1.8 -2.6 -4.0 Merced 6.4 3.8 12.9 8.9 San Joaquin 10.6 4.6 -6.2 17.0 11.9 -5.1 Stanislaus 6.7 3.7 -3.0 10.8 9.6 -1.2Tulare 9.4 3.4 -6.0 10.9 8.4 -2.5 72.2 34.2 -38.0 97.0 -30.6 **Totals** 127.6

Note: CARB calculated the revised  $PM_{10}$  budgets by taking the sum of the county-by-county emissions results from EMFAC and rounding the SJV-wide total up to the nearest whole ton for  $NO_x$  and to the nearest tenth of a ton for direct  $PM_{10}$ ; then re-allocating to the individual counties based on the ratio of each county's contribution to the total; and then rounding each county's emissions to the nearest tenth of a ton using the conventional rounding method. The previously approved budgets for  $PM_{10}$  were rounded up to the nearest tenth of a ton at the county level.

The revised direct  $PM_{10}$  and  $NO_x$  budgets for 2020 are intended to replace the EPA-approved  $PM_{10}$  and  $NO_x$  budgets developed using EMFAC2007 for the 2007  $PM_{10}$  Plan.

First, we note that the 2007 PM<sub>10</sub> Plan relied upon motor vehicle emission inventories, from which the budgets were derived, to demonstrate maintenance of the PM<sub>10</sub> standard through 2020. Maintenance through 2020 was demonstrated in the 2007 PM<sub>10</sub> Plan using a combination of chemical mass balance receptor modeling to identify emission source contributions by

23

 $<sup>^{20}</sup>$  The direct  $PM_{10}$  budgets include  $PM_{10}$  emissions from paved road dust, unpaved road dust, and road construction dust, as well as  $PM_{10}$  from vehicle exhaust and brake and tire wear.

chemical species and rollback techniques. See pages 6-11 of the 2007 PM<sub>10</sub> Plan. Given the modeling methods used to demonstrate maintenance, it is not possible to precisely calculate the change in concentration associated with the substitution of the approved budgets with the revised budgets. However, given that the revised budgets, when summed for the SJV region, are lower than the regional sum for the approved budgets, replacement of the approved budgets with the revised budgets would not undermine the maintenance demonstration in the 2007 PM<sub>10</sub> Plan.

Second, we have reviewed the analysis CARB prepared in support of the revised budgets. To further demonstrate that the changes to the direct  $PM_{10}$  and  $NO_x$  budgets are consistent with the 2007  $PM_{10}$  Plan for the 24-hour  $PM_{10}$  standard, CARB's analysis included a comparison of the estimated direct  $PM_{10}$  and  $NO_x$  emissions inventories from all sources (including stationary, area, on-road and non-road sources) for 2020. As shown below in table 9, the total emissions for 2020 associated with the revised budgets are approximately 10.2 tpd lower for direct  $PM_{10}$  and 121.0 tpd lower for  $NO_x$  when compared to the total emissions inventory in the 2007  $PM_{10}$  Plan. The lower estimates for  $NO_x$  are primarily due to greater reductions in  $NO_x$  from stationary sources than had been assumed in the 2007  $PM_{10}$  Plan.

The primary differences between the inventories in the 2007 PM<sub>10</sub> Plan and the supporting documentation for the revised budgets are from: (1) new or revised CARB mobile source measures (e.g., heavy-duty truck retrofit requirements and new or revised emissions standards for transportation refrigeration units, portable diesel engines, and large spark ignition engine regulation, among other categories) and new or revised San Joaquin Valley Air Pollution Control District (SJVAPCD or "District") stationary and area source measures (e.g., regulations

\_

<sup>&</sup>lt;sup>21</sup> The 2007 PM<sub>10</sub> Plan estimated a reduction in stationary source emissions of NO<sub>x</sub> from 106 tpd to 103 ptd from 2005 to 2020. See CARB's staff report titled "Analysis of the San Joaquin Valley 2007 PM<sub>10</sub> Maintenance Plan," appendix B. Instead, controls on such sources, as well as corrections and updates to inventory methods, are now expected to reduce such emissions 30 tpd.

affecting open burning; boilers, steam generators and process heaters; dryers, dehydrators and ovens; and internal combustion engines, among others); (2) corrections to the Manufacturing and Industrial and Food and Agriculture categories; (3) updates to agricultural and managed burned acreage and the reclassification of Wildfire Use as a natural source category; and (4) updates to CARB's emission estimation models for locomotives, commercial and recreational boats, transportation refrigeration units, construction equipment, oil drilling and workover equipment, cargo handling equipment, and farm equipment.

Table 9 shows that CARB's current estimates of NO<sub>x</sub> emissions for 2020 differ substantially from those projected in the 2007 PM<sub>10</sub> Plan. The changes in growth and control strategy assumptions for non-motor vehicle sources do not change the overall conclusions of the 2007 PM<sub>10</sub> Plan because they reflect, among other things, additional controls that support continued maintenance of the PM<sub>10</sub> standard in the SJV beyond those assumed in the plan. While the changes in emissions estimates lend support to the conclusion that the 2007 PM<sub>10</sub> Plan, with the revised budget, continues to meet the underlying purpose of the plan, i.e., to provide for maintenance of the PM<sub>10</sub> standard through 2020, the EPA also reviewed the ambient PM<sub>10</sub> concentration data collected over the past several years in the SJV to see if they too are consistent with the continued maintenance of the standard.

\_

 $<sup>^{22}</sup>$  The 2020 emissions inventory in the approved 2007 PM $_{10}$  Plan is from CARB's Staff Report titled "Analysis of the San Joaquin Valley 2007 PM $_{10}$  Maintenance Plan," appendix B, which was approved as part of the 2007 PM $_{10}$  Plan. See 40 CFR 52.220(c)(356)(ii)(A)(2). The updated 2020 emissions inventory is attached to a December 15, 2015 email from Dennis Wade, CARB, to John Ungvarsky, EPA Region 9.

	Direct PM <sub>10</sub>	NO <sub>x</sub>	Direct PM <sub>10</sub>	NO <sub>x</sub>	Direct PM <sub>10</sub>	NO <sub>x</sub>
Stationary	26.4	103.7	15.3	29.5	-11.1	-74.2
Area	247.8	17.1	251.7	8.4	+3.9	-8.7
On-road	9.7	124.7	7.6	96.7	-2.1	-28.0
Non-road	6.1	82.4	5.6	72.2	-0.5	-10.2
Totals	290.0	327.8	280.2	206.8	-10.2	-121.0

Note: For the net change, a negative number indicates a reduction, and a positive number indicates an increase relative to the corresponding figure in the 2007  $PM_{10}$  Plan.

From our review of the available, quality-assured, and certified  $PM_{10}$  ambient air monitoring data in the EPA's Air Quality System (AQS) for 2013 and 2014, along with preliminary data for 2015, we determined that the SJV  $PM_{10}$  maintenance area experienced multiple exceedances of the  $PM_{10}$  standard in 2013 and 2014. In response to the exceedances, the EPA evaluated whether the District implemented the contingency plan in its 2007  $PM_{10}$  Plan. In its contingency plan, the District established an action level of 155  $\mu$ g/m³ of  $PM_{10}$  over a 24-hour period. Should the action level be reached, the District committed to evaluating the exceedance and take appropriate action within 18 months of the event date. The following major steps comprise the District's contingency plan:

Step 1. The District will examine the event and determine if it needs to be classified as a natural or exceptional event in accordance with the EPA's final rulemaking (72 FR 13560). If the data qualify for flagging under this rule, the District would proceed with preparing and submitting the necessary documentation for a natural/exceptional event, and would not consider the monitored level as a trigger for the maintenance plan contingency plan.

Step 2. If the event does not qualify as a natural or exceptional event, the District would then analyze the event to determine its possible causes. It would examine emission reductions

from adopted rules or rule commitments in adopted and approved plans to see if emission reductions not used in demonstrating maintenance of the  $PM_{10}$  NAAQS would address the violation.

Step 3. If reductions from Step 2 above are insufficient, the District would proceed with identifying control measures from any feasibility studies (e.g., from the 2007 Ozone Plan) completed to date that recommend future controls and prioritize development of the measures most relevant to reducing  $PM_{10}$  levels.

In a March 11, 2016 letter to the EPA,<sup>23</sup> the District summarized the steps they had taken in response to the PM<sub>10</sub> exceedances, including implementation of the contingency plan in their 2007 PM<sub>10</sub> Plan. Specifically, the District identified seventeen exceedances of the PM<sub>10</sub> standard that occurred at five monitoring sites. Of these, the District characterized ten exceedances as high wind events that qualify as exceptional events per criteria in 40 CFR 50.1(j). CARB indicated they will be submitting to the EPA exceptional event documentation for some or all of these events; however, the EPA has not yet received the documentation in support of determining whether the ten exceedances qualify as exceptional events. The District characterized the remaining seven exceedances as exceptional events caused by "exceptional drought conditions" coinciding with stagnant air conditions, and indicated they will be submitting to CARB exceptional event documentation for these events. On February 16, 2016, the District requested that CARB flag five exceedances in AQS as possible exceptional events caused by the drought conditions.<sup>24</sup> On March 10, 2016, CARB responded to the District's February 16, 2016 request

-

<sup>&</sup>lt;sup>23</sup> Letter, Samir Sheikh, Deputy Air Pollution Control Officer, SJVAPCD, to Jared Blumenfeld, Regional Administrator, EPA Region 9, March 11, 2016.

<sup>&</sup>lt;sup>24</sup> Email, Shawn Ferreria, SJVAPCD, to Theresa Najita, CARB, February 16, 2016.

and indicated that the five exceedances could not be flagged as exceptional events because they did not meet the definition of an exceptional event in 40 CFR 50.1(j).<sup>25</sup>

In their March 11, 2016 letter to the EPA, the District identified multiple rules and regulations that reduce PM<sub>10</sub> or PM<sub>10</sub> precursors beyond commitments in the 2007 PM<sub>10</sub> Plan. Based on our analysis of the March 11 letter, the EPA has determined there is uncertainty regarding whether the rules and regulations identified by the District, when combined with the PM<sub>10</sub> revised budgets, are sufficient for maintenance of the PM<sub>10</sub> standard. Under section 110(k)(4) of the Act, the EPA may conditionally approve a plan revision based on a commitment by the State to adopt specific enforceable measures by a date certain but not later than one year after the EPA approval of the plan or plan revision. In this instance, the District indicated in their March 11, 2016 letter that adequate measures have been adopted to provide continued maintenance of the PM<sub>10</sub> standard; however, the EPA has determined that the State's revised budgets submittal and the District's March 11, 2016 letter alone are not sufficient for the EPA to determine the area will maintain the 24-hour  $PM_{10}$  standard. To help remedy this situation, in an April 29, 2016 letter to the EPA, CARB committed to submit a SIP revision by June 1, 2017 that will provide additional documentation on the nature and causes of each of the recent PM<sub>10</sub> exceedances. To the extent that data is available, the State committed to the following:<sup>26</sup>

- ullet Evaluation of PM $_{10}$  filter-based and continuous data across the SJV to understand the local or regional nature of each exceedance;
- ullet Analysis of PM $_{2.5}$  data to determine whether fine or coarse particles are contributing to the exceedance;

<sup>25</sup> Email, Theresa Najita, CARB, to Shawn Ferreria, SJVAPCD, March 10, 2016.

<sup>&</sup>lt;sup>26</sup> For additional background on the District's response to the 2013-2014 PM<sub>10</sub> exceedances and the State's April 29, 2016 letter, please see the docket for today's action.

- Analysis of available chemical speciation data including additional filter speciation analysis as appropriate to assess potential source types contributing to each exceedance; and
- Analysis of wind speed and direction, along with geographic visualization tools to help identify the types of sources impacting each monitor.

Based on these analyses, CARB and the District will determine the appropriate remedy to address the nature of each exceedance. This may include submittal of documentation for exceptional events, or analysis and evaluation of the further emission reductions that will accrue from ongoing implementation of current control programs or development of new control measures as part of upcoming attainment plans.

For exceedances that qualify as natural or exceptional events, CARB and the District will follow the notification and data flagging process that is contained in the EPA's revised Exceptional Event Rule ("EE Rule"). This will include a commitment to notify the EPA by July 1 of each year of the PM<sub>10</sub> data that has been flagged. Subsequent submittal of documentation for each event will follow requirements specified in the EE Rule. In addition, CARB and the District commit to ensuring ongoing network adequacy and data completeness through existing mechanisms such as data certification and the annual network plan review.

Based on the 2020 revised direct PM<sub>10</sub> and NO<sub>x</sub> budgets in table 8 above, the updated inventory estimates in table 9 above, and the commitments in CARB's April 29, 2016 letter, the EPA concludes that a conditional approval of the 2020 revised direct PM<sub>10</sub> and NO<sub>x</sub> budgets supports continued maintenance of the PM<sub>10</sub> standard and is consistent with applicable CAA requirements; thus, we propose to conditionally approve the 2020 revised direct PM<sub>10</sub> and NO<sub>x</sub> budgets as a revision to the 2007 PM<sub>10</sub> Plan.<sup>27</sup> If we finalize this proposed conditional approval,

29

<sup>&</sup>lt;sup>27</sup> To comply with CAA section 175A(a), a maintenance plan must provide for the maintenance of standard (for which an area is being redesignated) for 10 years from redesignation to attainment, under CAA section 175A(b),

CARB must adopt and submit the SIP revisions it has committed to submit by June 1, 2017. If CARB fails to comply with this commitment, the conditional approval will convert to a disapproval.

Lastly, approval of the revised budgets would not affect the trading mechanism first included in the SJV Amended 2003 PM<sub>10</sub> Plan and approved by the EPA at 69 FR 30006 (May 26, 2004) and later carried forward and approved as part of the 2007 PM<sub>10</sub> Plan. See pages 20-21 of the 2007 PM<sub>10</sub> Plan; 73 FR 22307, at 22317 (April 25, 2008); and 73 FR 66759, at 66772 (November 12, 2008). That is, the trading mechanism approved as part of the 2007 PM<sub>10</sub> Plan will remain available regardless of our action on the revised budgets.

### VI. Proposed Action and Request for Public Comment

For the reasons discussed above, the EPA is proposing to approve the revised ozone and PM<sub>2.5</sub> budgets and conditionally approve the revised PM<sub>10</sub> budgets in California's November 13, 2015 submittal for the SJV area. The revised budgets are shown in table 1 and are based on estimates from California's EMFAC2014 model.

More specifically, under CAA section 110(k)(3), the EPA is proposing to approve the revised VOC and NO<sub>x</sub> budgets for 2017, 2020, and 2023 for the 1997 8-hour ozone standard because replacement of the current approved budgets with the revised budgets would not interfere with the approved RFP and attainment demonstrations for the 1997 8-hour ozone standard in the SJV and because emissions changes in non-motor vehicle emissions categories do not change the overall conclusions of the 2007 Ozone Plan.

states are required, within eight years of redesignation to attainment, to submit a revision to the SIP that provides for the maintenance of the standard an additional ten years after expiration of the initial 10-year period. For the SJV and  $PM_{10}$ , California must submit a subsequent 10-year maintenance plan by December 12, 2016. We expect that the subsequent SJV  $PM_{10}$  maintenance plan will address the recent exceedances described in today's action.

30

Second, the EPA is also proposing to approve the revised direct PM<sub>2.5</sub> and NO<sub>x</sub> budgets for 2017 for the 2006 24-hour PM<sub>2.5</sub> standard because replacement of the current adequate budgets with the revised budgets would be consistent with our separate proposal finding that the 2012 PM<sub>2.5</sub> Plan demonstrates RFP for year 2017, because emissions changes in non-motor vehicle emissions categories do not change the overall conclusion of the 2012 PM<sub>2.5</sub> Plan, and because the revised budgets meet the adequacy criteria in 40 CFR 93.118(e)(4)(i)-(vi).

Third, under CAA section 110(k)(4), the EPA is proposing to conditionally approve the revised direct PM<sub>10</sub> and NO<sub>x</sub> budgets for 2020 for the 24-hour PM<sub>10</sub> standard because, when combined with implementation of the contingency plan in the SIP-approved 2007 PM<sub>10</sub> Plan and fulfillment of the commitments in the State's April 29, 2016 letter, they will allow the SJV to continue to demonstrate maintenance of the 24-hour PM<sub>10</sub> standard. If we finalize this proposed conditional approval, CARB must adopt and submit the SIP revisions that it has committed to submit by June 1, 2017. If CARB fails to comply with this commitment, the conditional approval will convert to a disapproval. Disapproval of the revised budgets for the 2007 PM<sub>10</sub> Plan would reinstate the existing approved budgets as the budgets that must be used in transportation plan and TIP conformity determinations after the effective date of the disapproval. See 40 CFR 93.109(c)(1). Because the submittal of the revised budgets is not a required submittal, disapproval would not trigger sanctions under CAA section 179(a)(2) but would nonetheless trigger a two-year clock for a federal implementation plan under CAA section 110(c), and it would not trigger a transportation conformity freeze because the disapproval does not affect a control strategy implementation plan as defined in the transportation conformity rule. See 40 CFR 93.101 and 93.120(a).

Lastly, if the EPA takes final action to approve the revised budgets as proposed, the San Joaquin Valley MPOs and DOT must use the revised budgets for future transportation conformity determinations.

The EPA is soliciting public comments on the issues discussed in this document or on other relevant matters. We will accept comments from the public on this proposal for the next 30 days. We will consider these comments before taking final action.

# **VII. Statutory and Executive Order Reviews**

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, the EPA's role is to approve State choices, provided that they meet the criteria of the CAA. Accordingly, this action merely proposes to approve a state plan as meeting Federal requirements and does not impose additional requirements beyond those imposed by State law. For that reason, this proposed action:

- Is not a "significant regulatory action" subject to review by the Office of Management and Budget under Executive Order 12866 (58 FR 51735, October 4, 1993);
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 et seq.);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);

- Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and
- Does not provide the EPA with the discretionary authority to address disproportionate
  human health or environmental effects with practical, appropriate, and legally permissible
  methods under Executive Order 12898 (59 FR 7629, February 16, 1994).

Executive Order 13175, entitled "Consultation and Coordination with Indian Tribal Governments" (65 FR 67249, November 9, 2000), requires the EPA to develop an accountable process to ensure "meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications." "Policies that have Tribal implications" is defined in the Executive Order to include regulations that have "substantial direct effects on one or more Indian tribes, on the relationship between the Federal government and the Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian Tribes."

Eight Indian tribes are located within the boundaries of the San Joaquin Valley air quality planning area for the 1997 8-hour ozone, 2006 24-hour PM<sub>2.5</sub>, and 1987 24-hour PM<sub>10</sub> standards: the Big Sandy Rancheria of Mono Indians of California, the Cold Springs Rancheria of Mono

Indians of California, the North Fork Rancheria of Mono Indians of California, the Picayune Rancheria of Chukchansi Indians of California, the Santa Rosa Rancheria of the Tachi Yokut Tribe, the Table Mountain Rancheria of California, the Tejon Indian Tribe, and the Tule River Indian Tribe of the Tule River Reservation.

The EPA's proposed approval of the revised budgets submitted by CARB to address the 1997 8-hour ozone, 2006 24-hour PM<sub>2.5</sub>, and 1987 24-hour PM<sub>10</sub> standards in the San Joaquin Valley would not have tribal implications because the SIP is not approved to apply on any Indian reservation land or in any other area where the EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the proposed SIP approvals do not have tribal implications and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000). Therefore, the EPA has concluded that the proposed action will not have tribal implications for the purposes of Executive Order 13175, and would not impose substantial direct costs upon the tribes, nor would it preempt Tribal law. We note that none of the tribes located in the San Joaquin Valley has requested eligibility to administer programs under the CAA.

# **List of Subjects in 40 CFR Part 52**

Environmental protection, Air pollution control, Incorporation by reference,
Intergovernmental regulations, Nitrogen dioxide, Ozone, Particulate matter, Reporting and
recordkeeping requirements, Sulfur dioxide, Volatile organic compounds.

AUTHORITY: 42 U.S.C. 7401 et seq.

Dated: May 9, 2016. Deborah Jordan,

Acting Regional Administrator,

EPA Region 9.

[FR Doc. 2016-11741 Filed: 5/17/2016 8:45 am; Publication Date: 5/18/2016]